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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.            | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------------|------------------|
| 10/601,601   | 06/23/2003  | Roland K. Sevilla    | 100176X219814                  | 1503             |
| 29050  | 7590        | 06/07/2006           |                                |                  |
| STEVEN WESEMAN<br>ASSOCIATE GENERAL COUNSEL, I.P.<br>CABOT MICROELECTRONICS CORPORATION<br>870 NORTH COMMONS DRIVE<br>AURORA, IL 60504 |             |                      | EXAMINER<br>RACHUBA, MAURINA T |                  |
|  |             |                      | ART UNIT<br>3723               | PAPER NUMBER     |

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/601,601             | SEVILLA, ROLAND K.  |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | M Rachuba              | 3723                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-11,14,16-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-10,14,16-19 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Pri rity under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of species 1 in the reply filed on 01 December 2005 is acknowledged.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-11, 14, 16 and 17 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/02279 A2 in view of Grumbine et al, 20030194959. '279 does not explicitly disclose a specific void volume, or a specific average groove width of the first, or second, or combination of first and second grooves. '959 teaches that it is known to provide a polishing pad having a void volume of between 25% and 50%. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided '279 with the claimed void volume as taught by '959, [0004], to allow polishing solution to be transported across the pad, as is known in the art. Regarding the desired number and size of grooves, it would have been obvious to one of ordinary skill to have provided '279 with the claimed ranges of sizes and quantity of grooves, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Here, '279, pages 13-15, discusses

varying the groove density (number of grooves) to achieve a desired polishing uniformity and pad flexibility. The larger the width of the grooves, the more flexible the polishing pad.

4. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/02279 A2 in view of Grumbine et al, 20030194959, as applied to claim 1, and further in view of Wadensweiler et al, US006841057B2. '279 as modified by '959 does not disclose that the polishing pad comprises abrasive, or that the body of the polishing pad is conductive, comprising conductive elements or a conductive polymer. '057, teaches that it is known to make polishing pads abrasive, that when used with a polishing medium, facilitates material removal from the substrate. It would have been obvious to one of ordinary skill in the art to have provided '279 with the abrasive taught by '057, column 17, lines 44-60, to facilitate material removal from the substrate. '057 also teaches that it is old and well known to make a polishing pad conductive, using conductive elements or a conductive polymer. It would have been obvious to one of ordinary skill to have made '279 conductive, through use of conductive elements or conductive polymer, as taught by '057, column 6, lines 60 through column 8, lines 37, to allow the pad to be used in electro-chemical-mechanical polishing of the substrate, to remove material that are difficult to remove through chemical-mechanical polishing, see column 1, lines 35 column 2, lines 15.

#### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-4, 6-10, 14, 16-19 and 21 have been considered but are moot in view of the new ground(s) of rejection. Further,

applicant argues that '279 does not disclose a polishing pad used in eCMP. Applicant has not claimed any structure that would limit the use of the pad as claimed to a specific process of use or apparatus. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Further, it is noted that the features upon which applicant relies (i.e., that the pad is used in eCMP) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Here, the pad as claimed by applicant can be used in any way that would require a pad, such as floor polishing, CMP, jewelry making, and many other applications. The examiner **cannot** read limitations from the specification into the claims.

6. Applicant further argues that '057 does not disclose that the *body* of the pad is conductive. '057 discloses that the pad has pockets that hold conductive elements. It is the examiner's position that as the conductive elements lie within the body of the pad, that the body of the pad can be considered conductive, without further structural limitations that would define the parameters of the conductive body. Applicant is correct that it is column 7 lines 44-60 and not column 17, lines 44-60, that teach the conductive pad.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

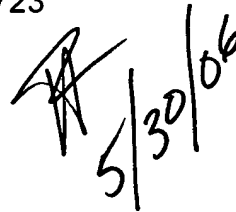
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M Rachuba whose telephone number is 571-272-4493. The examiner can normally be reached on Monday-Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M Rachuba  
Primary Examiner  
Art Unit 3723

Handwritten signature and date. The signature is a stylized 'M' followed by a checkmark. The date is written as '5/30/06'.